

From: Page, Thurman  
Sent: Thursday, April 07, 2005 5:38 PM  
To: Basi, Nirmal; STIC-Biotech/ChemLib  
Cc: Page, Thurman  
Subject: RE: Rush search for 09/719,485

Importance: High

RUSH SEARCH APPROVED

Thurman K. Page  
SPE, Art Unit 1615  
Technology Center 1600  
571-272-0602

-----Original Message-----

From: Basi, Nirmal  
Sent: Thursday, April 07, 2005 5:36 PM  
To: Page, Thurman  
Subject: FW: Rush search for 09/719,485

Need approval for a rush search, Cristina is out until Monday.

I am seeking approval for a RUSH sequence search, as indicated below. If approved, could you please forward the search to STIC and cc a copy to me.

Examiner: Nirmal S. Basi  
Art Unit 1646  
Office: Remsen Building, Room 4D68  
Mail Room: Remsen Building, room 4C70

Sequence search:

App. #: 09/719,485  
Result format: Paper.

Title: **CLONING AND IDENTIFICATION OF THE MOTLIN RECEPTOR**

Inventors: Feighner et al

Priority Date: 6/12/98

Please search:

- i) SEQ ID NOs: 1-5  
ii) ~~Nucleic acid encoding the polypeptide of SEQ ID NO: 1~~

Search issued, commercial and interference databases.

Thanks,  
Nirmal S. Basi

\*\*\*\*\*

STAFF USE ONLY

Searcher: Arnold  
Searcher Phone: 2-2532  
Date Searcher Picked up: 4/12/05  
Date Completed: 4/12/05  
Searcher Prep/Rev. Time: \_\_\_\_\_  
Online Time: \_\_\_\_\_

\*\*\*\*\*

Type of Search

NA#: \_\_\_\_\_ AA#: \_\_\_\_\_  
Interference: \_\_\_\_\_ SPDI: \_\_\_\_\_  
S/L: \_\_\_\_\_ Oligomer: \_\_\_\_\_  
Encode/Transl: \_\_\_\_\_  
Structure#: \_\_\_\_\_ Text: \_\_\_\_\_  
Inventor: \_\_\_\_\_ Litigation: \_\_\_\_\_

\*\*\*\*\*

Vendors and cost where applicable

STN: \_\_\_\_\_  
DIALOG: \_\_\_\_\_  
QUESTEL/ORBIS: \_\_\_\_\_  
LEXIS/NEXIS: \_\_\_\_\_  
SEQUENCE SYSTEM: \_\_\_\_\_  
WWW/Internet: \_\_\_\_\_  
Other(Specify): \_\_\_\_\_

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 ACCESSION AF034632  
 VERSION AF034632.1 GI:2654158  
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 SOURCE  
 ORGANISM Homo sapiens (human)  
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 AUTHORS McKee, K.K., Tan, C.P., Palyha, O.C., Liu, J., Feighner, S.D., Hreniuk, D.L., Smith, R.G., Van Der Ploeg, L.H.T. and Howard, A.D.  
 TITLE Cloning and characterization of two human G protein-coupled receptor genes (GPR38 and GPR39) related to the growth hormone secretagogue and neurotensin receptors  
 JOURNAL Genomics 46 (3), 426-434 (1997)  
 MEDLINE 94110578  
 PUBMED 9411746  
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 AUTHORS McKee, K.K., Tan, C.P., Palyha, O.C., Liu, J., Feighner, S.D., Hreniuk, D.L., Smith, R.G., Van Der Ploeg, L.H.T. and Howard, A.D.  
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 Db 61 GGGCTGCGCCCTTGGAGACGAGGCGCGCTGCTGCTTCCCTTGGGGGCGCTGGTGGCC 120  
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## ALIGNMENTS

## RESULT 1

## MTLR HUMAN

ID MTLR HUMAN STANDARD; PRT; 412 AA.

AC O43193;

DT 15-DEC-1998 (Rel. 37, Created)

DT 15-DEC-1998 (Rel. 37, Last sequence update)

DT 25-OCT-2004 (Rel. 45, Last annotation update)

DE Motilin receptor (G protein-coupled receptor 38).

GN Name=MLNR; Synonyms=GPR38, MTLR, MTLR1;

OS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

OX NCBI\_TaxID=9606;

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RP SEQUENCE FROM N.A. (ISOFORM A).

RX MEDLINE=98110578; PubMed=9441746; DOI=10.1006/geno.1997.5069;

RA McKee K.K., Tan C.P., Palyha O.C., Liu J., Feighner S.D.,

RA Hreniuk D.L., Smith R.G., Howard A.D., van der Ploeg L.H.T.;

RT "Cloning and characterization of two human G protein-coupled receptor

RT genes (GPR38 and GPR39) related to the growth hormone secretagogue and

RT neurotensin receptors.";

RL Genomics 46:426-434(1997).

RN [2]

RP SEQUENCE FROM N.A. (ISOFORMS A AND B).

RX MEDLINE=99316084; PubMed=10381885; DOI=10.1126/science.284.5423.2184;

RA Feighner S.D., Tan C.P., McKee K.K., Palyha O.C., Hreniuk D.L.,

RA Pong S.-S., Austin C.P., Figueroa D., MacNeil D., Cascieri M.A.,

RA Nargund R., Bakshi R., Abramovitz M., Stocco R., Kargman S.,

RA O'Neill G., van Der Ploeg L.H.T., Evans J., Patchett A.A., Smith R.G.,

RA Howard A.D.;

RT "Receptor for motilin identified in the human gastrointestinal

RT system.";

RL Science 284:2184-2188(1999).

RN [3]

RP SEQUENCE FROM N.A.

RX PubMed=15057823; DOI=10.1038/nature02379;

RA Dunham A., Matthews L.H., Burton J., Ashurst J.L., Howe K.L.,

RA Ashcroft K.J., Beare D.M., Burford D.C., Hunt S.E.,

RA Griffiths-Jones S., Jones M.C., Keenan S.J., Oliver K., Scott C.E.,

RA Ainscough R., Almeida J.P., Ambrose K.D., Andrews D.T.,

RA Ashwell R.I.S., Babbage A.K., Bagguley C.L., Bailey J., Bannerjee R.,

RA Barlow K.F., Bates K., Beasley H., Bird C.P., Bray-Allen S.,

RA Brown A.J., Brown J.Y., Burrill W., Carder C., Carter N.P.,

RA Chapman J.C., Clamp M.B., Clark S.Y., Clarke G., Clee C.M.,

RA Clegg S.C., Cobley V., Collins J.B., Corby N., Coville G.J.,

RA Deloukas P., Dhami P., Dunham I., Dunn M., Earthrowl M.B.,

RA Ellington A.G., Faulkner L., Frankish A.G., Frankland J., French L.,

RA Garner P., Garnett J., Gilbert J.G.R., Gilson C.J., Ghorji J.,

RA Grafham D.V., Gribble S.M., Griffiths C., Hall R.E., Hammond S.,

RA Harley J.L., Hart E.A., Heath P.D., Howden P.J., Huckle E.J.,

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RA King A., Laird G.K., Langford C.J., Lawlor S., Leongamornlert D.A.,

RA Lloyd D.M., Lloyd C., Loveland J.E., Lovell J., Martin S.,

RA Mashreghi-Mohammadi M., McLaren S.J., McMurray A., Milne S.,

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RA Pelan S., Phillimore B., Porter K.M., Rice C.M., Searle S.,  
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RA Wall M., Wallis J.M., West A.P., Whitehead S.L., Willey D.L.,  
RA Wilming L., Wray P.W., Wright M.W., Young L., Coulson A., Durbin R.,  
RA Hubbard T., Sulston J.E., Beck S., Bentley D.R., Rogers J., Ross M.T.,  
RA "The DNA sequence and analysis of human chromosome 13.",  
RL Nature 428:522-528 (2004).  
RN [4]  
RP FUNCTION.  
RX MEDLINE=21219832; PubMed=11322507; DOI=10.1385/ENDO.14:1.009;  
RA Smith R.G., Leonard R., Bailey A.R.T., Palyha O.C., Feighner S.D.,  
RA Tan C.P., McKee K.K., Pong S.-S., Griffin P.R., Howard A.D.,  
RA "Growth hormone secretagogue receptor family members and ligands.",  
RT Endocrine 14:9-14 (2001).  
CC -!- FUNCTION: Receptor for motilin.  
CC -!- SUBCELLULAR LOCATION: Integral membrane protein.  
CC -!- ALTERNATIVE PRODUCTS:  
CC Event-Alternative splicing; Named isoforms=2;  
CC Name=A;  
CC IsoId=O43193-1; Sequence=Displayed;  
CC Name=B;  
CC IsoId=O43193-2; Sequence=VSP\_001894;  
CC -!- TISSUE SPECIFICITY: Expressed only in thyroid, stomach, and bone marrow.  
CC -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation at the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <http://www.isb-sib.ch/announce/> or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
DR EMBL; AF034632; AAC26081.1; --  
DR EMBL; AL137000; CAC19107.1; --  
DR Genbank; HGNC:4495; MIM: 602885; --  
DR GO; GO:0005887; C:integral to plasma membrane; TAS.  
DR GO; GO:0004930; F:G-protein coupled receptor activity; TAS.  
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FT DOMAIN 75 94 2 (Potential).  
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FT CARBOHYD 192 N-linked (GlcNAc. . .) (Potential).  
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DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)  
OS Orphan G protein-coupled receptor.  
DE Spherooides nephelus.  
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
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RP MEDLINE=2092336; PubMed=10628755; DOI=10.1210/me.14.1.160;  
RA Palyha O.C., Feighner S.D., Tan C.P., McKee K.K., Hreniuk D.L.,  
RA Gao Y.D., Schlem K.D., Yang L., Morriello G.J., Nargund R.,  
RA Patchett A.A., Howard A.D., Smith R.G.;  
RT "Ligand activation domain of human orphan growth hormone (GH) secretagogue receptor (GHS-R) conserved from Pufferfish to humans.";  
RL Mol. Endocrinol. 14:160-169 (2000).  
CC -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
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DEFINITION	Homo sapiens orphan G protein-coupled receptor (GPR38) gene,
ACCESSION	AF034632
VERSION	AF034632.1 GI:2654158
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REFERENCE	1 (bases 1 to 2040) McKee,K.K., Tan,C.P., Palyha,O.C., Liu,J., Feigmer,S.D., Hrenik,D.L., Smith,R.G., Howard,A.D. and Van der Ploeg,L.H. Cloning and characterization of two human G protein-coupled receptor genes (GPR38 and GPR39) related to the growth hormone secretagogue and neurotensin receptors
AUTHORS	Genomics 46 (3), 426-434 (1997) 98110578 PUBMED 9441746
JOURNAL	2 (bases 1 to 2040) McKee,K.K., Tan,C.P., Palyha,O.C., Liu,J., Feigmer,S.D., Hrenik,D.L., Smith,R.G., Van Der Ploeg,L.H.T. and Howard,A.D. Direct Submission Submitted (17-NOV-1997) Biochemistry and Physiology, Merck and Co., Inc., PO Box 2000, Rahway, NJ 07065, USA Location/Qualifiers
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JOURNAL	
FEATURES	

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 /translation="MSPMNGSDPEGAEPWPALPCDDEBRCPPPLGALVPTAV  
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 VMVAVALISAGPPLVGVGODPGISVVGINTARLASPLASPPMLASAPSP  
 PSGETEAAALPESRECRSPADGALRVMLVWTAVPLPLCLSLILYGLRELS  
 SRRLRGPASGRGRHROTIVLVVLAFLICMLPHVGRITVINTSDSNMYPSS  
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 DTGGDTVGTETISANVKTMG"

## ORIGIN

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 Best Local Similarity 100.0%; Pred No. 1.8e-130;  
 Matches 1052; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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 DB 1 ATGGGAGAGCCCTGGAACGAGCAGAGCCCGAGGGGCGGGAGCCGCTGAGCC 60  
 QY 61 GCGCTGCGGCTTGGCAACGAGCCGCTGCTCCCTTCCCTGGGGGCGCTGAGCCG 120  
 DB 61 GCGCTGCGGCTTGGCAACGAGCCGCTGCTCCCTTCCCTGGGGGCGCTGAGCCG 120  
 QY 121 GTGACGCGTGTGACGCGTGTGCTGCTGCTGCTGAGGGGCAAGTGTGACCGTG 180  
 DB 121 GTGACGCGTGTGACGCGTGTGCTGCTGCTGCTGAGGGGCAAGTGTGACCGTG 180  
 QY 181 ATGCTGATCGGCGCTACCGGAGATCGGAGCAACCACTTGTACTGTGGCAGATG 240  
 DB 181 ATGCTGATCGGCGCTACCGGAGATCGGAGCAACCACTTGTACTGTGGCAGATG 240  
 QY 241 GCGGTGCGCACTGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 300  
 DB 241 GCGGTGCGCACTGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 300  
 QY 301 TCGGCGCGCGGGGCTTGGGCGCGCTGCTGCGCGCGCTGCTGCTGCTGCTGCTGCT 360  
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 DB 841 CTGCGAGCGCGCGCGCTGCTGCGGCGGAGAGAGGCGCACCGGAGACCGCTCGCGCTG 900  
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## RESULT 11

## AL137000

LOCUS 163284 bp DNA linear PRI 18-DEC-2000  
 DEFINITION Human DNA sequence from clone RP11-203116 on chromosome 13 contains the gene for KIA0970 protein, COX7C1 (cytochrome c oxidase subunit VIIc pseudogene 1), a novel pseudogene, the GPR38 (G protein-coupled receptor 38) gene, ESTs, STSs, GSSs and a Cpg island, complete sequence.

## ACCESSION

AL137000

## VERSION

AL137000.6 GI:9944121

## KEYWORDS

HTG; COX7C1; Cpg island; cytochrome c oxidase; G protein-coupled receptor; GPR38; KIA0970.

## SOURCE

Homo sapiens (human)

## ORGANISM

Homo sapiens

## REFERENCE

Waller, M. Direct Submission Sanger Centre, Hinxton, Cambridgeshire, Submitted (18-DEC-2000) Sanger Centre, Hinxton, Cambridgeshire, CB10 1SA, UK. B-mail enquiries: humquerry@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk

## TITLES

On Aug 29, 2000 this sequence version replaced gi:9926419.

## JOURNAL

During sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.

## COMMENT

The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases: Em; EMBL; Sw; SWISSPROT; Tr; TrEMBL; Wp; WormBase; Information on the WormBase database can be found at

## AUTHORS

http://www.sanger.ac.uk/Projects/C\_elegans/wormbase This sequence was generated from part of bacterial clone contigs of human chromosome 13, constructed by the Sanger Centre Chromosome 13 Mapping Group. Further information can be found at

## IMPORTANT

http://www.sanger.ac.uk/HGP/Chr13

## sections only once, except for a 100 base overlap.

IMPORTANT: This sequence is not the entire insert of clone RP11-203116 it may be shorter because we sequence overlapping sections only once, except for a 100 base overlap.

## Mapping Group.

Further information can be found at

## http://www.sanger.ac.uk/HGP/Chr13

This sequence is not the entire insert of clone RP11-203116 it may be shorter because we sequence overlapping

## sections only once, except for a 100 base overlap.

sections only once, except for a 100 base overlap.

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sections only once, except for a 100 base overlap.



## ALIGNMENTS

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RA Moore M.J.F., Nickerson T., Palmer S.A., Pearce A.V., Peck A.I.,  
 RA Pelan S., Philimore R., Porter K.M., Rice C.M., Seale S.,  
 RA Sehra H.K., Shumway R., Stucke C.D., Smith M., Steward C.A.,  
 RA Sycamore N., Tester J., Thomas D.W., Tracey A., Tromans A., Tubby B.,  
 RA Wall M., Wallis J.W., West A.P., Whitehead S.L., Willey D.L.,  
 RA Wilmshurst L., Wray P.W., Wright M.W., Young L., Coulson A., Dubin R.,  
 RA Hubbard T., Sulston J.E., Beck S., Bentley D.R., Rogers J., Ross M.T.,  
 RT "The DNA sequence and analysis of human chromosome 13.",  
 RL Nature 428:522-528 (2004).  
 RN [4]  
 RP FUNCTION.  
 RX MEDLINE=21219832; PubMed=11322507; DOI=10.1395/ENDO.14.1.009;  
 RA Smith R.G., Leonard R., Bailey A.R.T., Palyha O.C., Feigheimer S.D.,  
 RA Tan C.P., McKee K.K., Pong S.-S., Griffin P.R., Howard A.D.;  
 RT "Growth hormone secretagogue receptor family members and ligands";  
 RL Endocrine 14:9-14 (2001).  
 CC -1- FUNCTION: Receptor for motilin.  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -1- ALTERNATIVE PRODUCTS:  
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 CC Name=A;  
 CC IsoId=O43193-1; Sequence=Displayed;  
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 CC -1- TISSUE SPECIFICITY: Expressed only in thyroid, stomach, and bone marrow.  
 CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation at the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <http://www.isb-sib.ch/announce/> or send an email to [license@sib-sib.ch](mailto:license@sib-sib.ch)).  
 CC EMBL; AF034632; AAC26081.1; -;  
 CC EMBL; AL137000; CAC19107.1; -;  
 CC Gene; HGNC:4495; MMR.  
 DR MIM; 602885; -;  
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 DR GO; GO:0004930; F:G-protein coupled receptor activity; TAS.  
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 AC 06VGZ2;  
 DT 05-VUL-2004 (TRENBLREL. 27, Created)  
 DT 05-VUL-2004 (TRENBLREL. 27, Last sequence update)  
 DT 05-VUL-2004 (TRENBLREL. 27, Last annotation update)  
 DE Growth hormone secretagogue receptor 1b.  
 OS Acanthopagrus schlegelii (Black porgy).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;  
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 RP SEQUENCE FROM N.A.  
 RX PubMed=15062547; DOI=10.1016/j.mce.2003.11.020;  
 RA Chan C.B., Cheng C.H.K.;  
 RT "Identification and functional characterization of two alternatively  
 RT spliced growth hormone secretagogue receptor transcripts from the  
 RT pituitary of black seabream Acanthopagrus schlegelii".  
 RL Mol. Cell. Endocrinol. 214:81-95 (2004).  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
 CC -1- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
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 DR GO; GO:0016520; F:Growth hormone-releasing hormone receptor a...; IEA.  
 DR GO; GO:0004872; F:Receptor activity; IEA.  
 DR GO; GO:0001584; F:Rhodopsin-like receptor activity; IEA.  
 DR GO; GO:0007186; P:G-protein coupled receptor protein signalin...; IEA.  
 DR InterPro; IPR003905; GHS1\_receptor.  
 DR InterPro; IPR000276; GPCR\_Rhodopsn.  
 DR Pfam; PF00001; 7tm\_1; 1.  
 DR PRINTS; PR01417; GHSRRECEPTOR.  
 DR PRINTS; PR00237; GPCRHOPOSN.  
 DR PROSITE; PS00237; G-PROTEIN RECP F1.1; 1.  
 DR PROSITE; PS0262; G-PROTEIN RECP F1.2; 1.  
 KW G-protein coupled receptor; Receptor; Transmembrane.  
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